3.6 VISUAL RESOURCES

This section presents an assessment of potential visual resource impacts of the Proposed Project and alternatives. Section 3.6.1 provides a discussion of the affected environment for visual resources in the project area. The impact assessment methodology is discussed, and potential impacts of the Proposed Project and alternatives are identified in Section 3.6.2.

3.6.1 Affected Environment

The following is a description of visual resources present in the project area that could be affected by implementation of the Proposed Project and its alternatives. This discussion includes the development of existing and interim Visual Resource Management Classifications for various parts of the project area and their associated management objectives.

3.6.1.1 Federal

Section 102 (a)(8) of the FLPMA of 1976 places an emphasis on the protection of the quality of scenic resources on public land. Section 101 (b) of NEPA requires that measures be taken to ensure that aesthetically pleasing surroundings be retained for all Americans.

To meet its responsibility to maintain the scenic value of public lands, the BLM has developed the Visual Resource Management (VRM) system. The VRM system is implemented through the RMP and the Management Framework Plan (MFP) process. Visual resources are to be considered in all BLM planning and environmental assessment documents. The BLM contrast rating system was used to determine potential visual impacts of the Proposed Project and alternatives under consideration in this document, and is discussed in more detail below in Section 3.6.1.1.1, Visual Resource Management System-Visual Contrast Rating.

The NECO Plan (BLM 2002a), an amendment to the CDCA Plan (1980, as amended) does not establish VRM objectives. The CDCA Plan Amendment for the Coachella Valley (BLM 2002b), on the other hand, does establish VRM objectives except for non-wilderness areas where it overlaps with the NECO Plan.

3.6.1.1.1 Visual Resource Management System

Portions of the Proposed Project and alternative transmission line corridors would be located within areas administered by the BLM, and, as such, are subject to the BLM VRM System. BLM has developed an analytical process that identifies, sets, and meets objectives for maintaining scenic values and visual quality. Visual resources, as defined by the BLM, are the visible physical features of a landscape (e.g., land, water, vegetation, animals, structures, and other features). All land has inherent visual values which warrant different levels of management; it is neither desirable nor practical to provide the same level of management for all visual resources. For example, management of an area with high scenic value might be focused on preserving the existing character of the landscape, while management of an area with little scenic value might allow for major modifications. Identifying an area's visual resources requires

assessing the area's inherent scenic values (i.e., its visual appeal), assessing public concern for scenic quality, and developing appropriate management levels to protect it. As a starting point, BLM conducts an inventory that evaluates the visual resources on all land under its jurisdiction (Inventory/Evaluation). Once inventoried and analyzed, lands are given relative Visual Resources Management ratings (VRM Classifications). VRM Class designations are derived from an analysis of:

- Scenic Quality (rated by landform, vegetation, water, color, influence of adjacent scenery, scarcity, and cultural modification);
- Viewer Sensitivity Levels (sensitivity of people to changes in the landscape); and
- Distance Zones (visual quality of a landscape, as well as user reaction, may be magnified or diminished by the visibility of the landscape).

The BLM has established different objectives for each VRM Classification, with differing degrees of modifications allowed to the basic elements of the landscape (form, line, color, texture). The VRM Management Classification Objectives are defined as follows:

Class I: Natural ecological changes and very limited management activity are allowed. Any contrast created within the characteristic landscape must not attract attention. This classification is applied to wilderness areas, wild and scenic rivers, and other similar situations.

Class II: Changes in any of the basic elements caused by management activity should not be evident in the characteristic landscape. Contrasts are visible, but must not attract attention.

Class III: Changes to the basic elements caused by management activity may be evident, but should remain subordinate to existing landscape.

Class IV: Any contrast may attract attention and be a dominant feature of the landscape in terms of scale, but should repeat the form, line, color, and texture of the characteristic landscape.

Class V: Natural characteristics of the landscape have been disturbed to a point where rehabilitation is needed to bring it up to one of the four other classifications. The classification also applies to areas where there is potential to increase the landscapes visual quality. It would, for example, be applied to areas where unacceptable cultural modification has lowered scenic quality; it is often used as an interim classification until objectives of another class can be reached.

When a site-specific project is proposed, the degree of contrast between the proposed activity and the existing landscape is measured (Contrast Rating). The contrast rating process compares the proposed activity with existing conditions element by element (form, line, color, texture) and feature by feature (land/water surface, vegetation, structures). The contrast rating is compared to the appropriate VRM Classification to determine if contrasts are acceptable. If the Proposed Project exceeds the allowable contrast, a BLM decision is made to (1) redesign, (2) abandon or reject, or (3) proceed, but with mitigation measures stipulated to reduce project contrast.

3.6.1.1.2 Interim Visual Resource Management Classifications and Objectives

Interim VRM Classifications are established when a project is proposed and there are no RMP or Management Framework Plan-approved VRM Classifications. These interim VRM Classifications are developed using the guidelines in BLM VRM Manual Section 8410 and 8411, Visual Resource Inventory, and must conform to the land use allocations set forth in the RMP which covers the project area. Although it is a goal of the BLM to inventory and assign VRM Classifications to land within its jurisdiction, the project area has not been fully inventoried and VRM Classifications have been assigned only to public lands within the Coachella Valley (Foote 2002). As such, based upon BLM VRM Manual Section 8410, "interim" VRM Classifications have been assigned to public land within the project area that are located outside the Coachella Valley. Figure 3.6-1a depicts the BLM's established VRM Classifications in the Coachella Valley and Figure 3.6-1b depicts the interim VRM Classifications developed for use in this analysis in the central and eastern portions of the project area.

The first step in assigning interim VRM Classifications is to perform a scenic quality inventory and evaluation of the project area. The landforms, vegetation, water features (if any), color, adjacent scenery, scarcity, and cultural modifications of the area under inventory are all assessed and scored. When all of the scores are added up, a scenic quality rating is then assigned to that particular location, or scenic quality rating unit. For the Proposed Project and the Alternative A and C transmission line routes, two distinct scenic quality rating units were identified and inventoried for scenic quality based on similar landform, vegetation, color, and cultural modifications. These include:

(1) The Eastern end of the project area near Blythe to the eastern edge of the Chuckwalla Mountains; and

(2) Central portion of the project area from the Chuckwalla Mountains to the CVPA Planning Area boundary in the eastern Coachella Valley.

For the Alternative B transmission line route, four scenic quality rating units were inventoried for scenic quality, including:

(3) The Eastern end of the project area near Blythe, south to the Palo Verde Mountains;

(4) The Palo Verde Mountains south to Glamis, California;

(5) Northwest of Glamis, California along the Algodones Dunes; and

(6) North of the Algodones Dunes to the Midway Substation in the Imperial Valley.

3.6.1.1.2.1 Eastern End of Project Area to Chuckwalla Mountains – The following is a summary of the scenic quality inventory for this portion of the project area. The landforms in this area consist of flat valley bottoms, dry lake beds, and low rolling terrain with few interesting landscape features and was assigned a score of 1. Vegetation in this area is generally sparse and features little variety of contrast and was assigned a score of 1. Water features are not present in this region, so a score of 0 was assigned. Color variations in this area are subtle with little contrast and were scored as 1. Adjacent scenery, comprised of distant mountain ranges, has little influence on the overall visual quality in this broad valley bottom setting and was scored as 0.

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Figure 3.6-1a
BLM Established VRM Classifications

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Figure 3.6-1b
Interim VRM Classifications

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The scenery is quite common in this region and was therefore assigned a scarcity score of 1. Finally, cultural modifications consisting of I-10 and various transmission lines, roads, and other linear features add variety, but are discordant with the natural landscape and have been assigned a score of –4. Since the sum of the scenic quality score is 0, the scenic quality of this portion of the project area is rated as "C".

3.6.1.1.2.2 Central Project Area from the Chuckwalla Mountains to the CVPA Planning Area – The following is a summary of the scenic quality inventory for this portion of the project area. The landforms in this area consist of several mountain ranges that lie to the north and south of the I-10 corridor at varying distances. This landscape features desert mountain ranges, canyons, and buttes, featuring interesting geologic and erosional patterns. These mountain ranges are dominant in this landscape, but are not exceptional in character. Accordingly, the landforms in this area were assigned a score of 3. Vegetation in this area exhibits some variety, but is comprised of just one or two major types or communities and was assigned a score of 3. Water features are not present in this region, so a score of 0 was assigned. Color variations in this area provide some variety, given the geology of the mountain ranges present; the color contrasts between soils, geology, and vegetation in this region are not a dominant scenic element. Thus, a score of 3 was assigned. Adjacent scenery, comprised of adjacent mountain ranges, greatly enhances visual quality in this area and was scored as 5. This scenery is quite common in the California Desert, and although it is distinctive, is not considered exceptional as viewed from the I-10 corridor. Accordingly, a scarcity score of 3 was assigned. Finally, cultural modifications consisting of I-10 and various transmission lines, roads, and other linear features add variety, but are discordant with the natural landscape and have been assigned a score of –4. With a total score of 13, the scenic quality of this portion of the project area is rated as "B".

3.6.1.1.2.3 Eastern End of Project Area, South to the Palo Verde Mountains (Alternative B) – The landforms in this area consist of flat valley bottoms, dry lake bed, and low rolling terrain with few interesting landscape features and was assigned a score of 1. Vegetation in this area is generally sparse and features little variety of contrast and was assigned a score of 1. Water features are not present in this region, so a score of 0 was assigned. Color variations in this area are subtle with little contrast and were scored as 1. Adjacent scenery, comprised of distant mountain ranges, has little influence on the overall visual quality in this broad valley bottom setting and was scored as 0. This scenery is quite common in this region and was therefore assigned a scarcity score of 1. Finally, cultural modifications consisting of various transmission lines, roads, and other linear features add variety, but are discordant with the natural landscape and have been assigned a score of –4. Since the sum of the scenic quality scores is 0, the scenic quality of this portion of the project area is rated as "C".

3.6.1.1.2.4 Palo Verde Mountains South to Glamis, California (Alternative B) – The landforms in this area consist of various desert mountain ranges separated by rolling to flat valley bottoms. This landscape features desert mountain ranges, canyons, and buttes, featuring interesting geologic and erosional patterns. These mountain ranges are dominant in this landscape, but are not exceptional in character. Accordingly, the landscape in this area was assigned a score of 3. Vegetation in this area exhibits some variety, but is comprised of just one or two major types or communities and was assigned a score of 3. Water features are not present in this region, so a score of 0 was assigned. Color variations in this area provide some variety, given the geology of the mountain ranges present, the color contrasts between soils, geology, and

vegetation in this region are not a dominant scenic element. Thus, a score of 3 was assigned. Adjacent scenery, comprised of adjacent mountain ranges, greatly enhances visual quality in this area and was scored as 5. This scenery is quite common in the California Desert, and although it is distinctive, is not considered exceptional as viewed from the Alternative B transmission line corridor. Accordingly, a scarcity score of 3 was assigned. Finally, cultural modifications consisting of SR-78 and various transmission lines, roads, and other linear features add variety, but are discordant with the natural landscape and have been assigned a score of –4. With a total score of 13, the scenic quality of this portion of the project area is rated as "B".

3.6.1.1.2.5 Northwest of Glamis, California along the Algodones Dunes (Alternative B) – The landforms in this area consist of a unique sand dune complex that runs approximately 40 miles long from north to south, forming a distinct mountain range of sand. To the east lies the Chocolate Mountains. This landscape features high rolling sand dunes and desert mountain ranges, in addition to interesting geologic and erosional patterns. These dunes are dominant in this landscape and are exceptional in character. The Chocolate Mountains are dominant, but not exceptional in character. Accordingly, the dune landscape to the west in this area was assigned a score of 5, while the mountainous landscape to the east was scored a 3. Vegetation in this area exhibits some variety, but is comprised of just one or two major types or communities and was assigned a score of 3. Water features are not present in this region, so a score of 0 was assigned. Color variations in this area are rich and vivid, providing a pleasing contrast between the dunes and adjacent desert soils and vegetation. To the west, a rating of 5 was assigned, while to the east, the color contrasts between soils, geology, and vegetation in this region are not a dominant scenic element. Thus, a score of 3 was assigned. Adjacent scenery, comprised of adjacent rolling sand dunes and mountain ranges, greatly enhances visual quality in this area and was scored as 5. The dune scenery is one of a kind in the California Desert and has been scored a 5 for scarcity. To the east, the mountain scenery is typical in the California Desert, and although it is distinctive, is not considered exceptional as viewed from the Alternative B transmission line corridor. Accordingly, a scarcity score of 3 was assigned. Finally, cultural modifications consisting of railroad tracks and a county road add little variety to the area and modest discordant elements to the natural landscape, yielding a score of 0. For the western side of this area, facing the Algodones Dunes, a total score of 23 was assigned, yielding a visual quality rating of "A". With a total score of 17, the scenic quality of the eastern side of this area, looking toward the Chocolate Mountains is rated as "B".

3.6.1.1.2.6 North of the Algodones Dunes to the Midway Substation in the Imperial Valley (Alternative B) – The landforms in this area consist of flat valley bottoms, low rolling terrain, and scattered agricultural fields, with few interesting landscape features and was assigned a score of 1. Vegetation in this area is generally sparse and features little variety of contrast and was assigned a score of 1. Water features are not present in this region, so a score of 0 was assigned. Color variations in this area are subtle with little contrast and were scored as 1. Adjacent scenery, comprised of distant mountain ranges, has little influence on the overall visual quality in this broad valley bottom setting and was scored as 0. This scenery is quite common in this region and was therefore assigned a scarcity score of 1. Finally, cultural modifications consisting of railroad tracks, roads, cultivated agricultural fields, and other human modifications add variety, but are discordant with the natural landscape and have been assigned a score of –4. Since the sum of the scenic quality scores is 0, the scenic quality of this portion of the project area is rated as "C".

3.6.1.1.2.7 Viewer Sensitivity Levels - The next step in assigning interim VRM Classifications to the project area involved assigning viewer sensitivity levels. Sensitivity levels are a measure of public concern for scenic quality. Public lands are assigned high, medium, or low sensitivity levels by analyzing the various indicators of public concern. Factors considered in the sensitivity level analysis include:

- Type of user or viewers present in the project area;
- Amount of use or visitation in the area;
- Public interest in the area under evaluation;
- Adjacent land uses;
- Special Areas requiring additional consideration (e.g., Wilderness Areas, Scenic Roads); and
- Other factors such as research or studies that involve visual sensitivity.

For the Proposed Project and alternatives the various scenic quality rating units were assigned sensitivity levels as follows. For type of use, highway travelers are assumed to have a medium level of sensitivity, since the highways in the project area (I-10, SR-78) are not designated as scenic highways. Amount of use is rated as high along the I-10 corridor and low along SR-78 and on the Niland-Glamis Road in the Alternative B portion of the project area. In general, public interest in the project area along the highways adjacent to existing utilities is rated as medium since more scenic areas receiving heavier visitation are available elsewhere in the project area (e.g., Joshua Tree NP, Imperial Sand Dunes RA). There are very few rural residences and commercial businesses that would be sensitive to visual impacts associated with the project. Since there are areas utilized for designated and dispersed recreational uses in areas adjacent to the various project transmission routes, a medium sensitivity rating for adjacent land uses was assigned. Special areas, consisting of designated wilderness areas, are located adjacent to, but outside of the Proposed and alternative transmission line corridors. Since there are no special areas crossed, a sensitivity rating of low has been assigned.

Table 3.6-1 presents the sensitivity levels for the scenic quality rating units.

Table 3.6-1
Sensitivity Levels for Scenic Quality Rating Units

Scenic Quality Rating Unit	Type of Use	Amount of Use	Public Interest	Adjacent Land Use	Special Areas*	Other Factors	Overall Rating
1	M	H	M	M	L	N/A	M
2	M	H	M	M	L	N/A	M
3	M	L	M	M	L	N/A	M
4	M	L	M	M	L	N/A	M
5	M	L	M	M	L	N/A	M
6	M	L	M	M	L	N/A	M

* Although the project would pass near designated wilderness areas, the project area is located outside the boundaries of these areas.

3.6.1.1.2.8 Distance Zones – Landscapes are subdivided into 3 distance zones based on relative visibility from travel routes or observation points. These zones are foreground/middle ground (less than 3 to 5 miles away), background (seen areas greater than 3 to 5 miles away), and seldom seen (distant areas rarely visible to the observer). For this project, since the transmission line would be constructed along existing utility corridors and/or highways and roads, the distance zone that applies universally is the foreground/middle ground.

Based on the scenic quality ratings described above, and taking into account viewer sensitivity levels and distance zones, interim VRM Classifications were assigned to the six scenic quality rating units within the project area.

These interim VRM Classifications, along with the VRM Classifications established through the CDCA Plan Amendment for the Coachella Valley, provide the basis for the visual impact assessment presented herein.

Table 3.6-2 (from BLM manual handbook 8410-1, January 17, 1986) was used to determine the interim visual resource management classifications taking into account scenic quality ratings, viewer sensitivity, and distance zones, as described above.

Table 3.6-2
Determination of Visual Resource Management Classifications

Visual Sensitivity Level	**High**	**High**	**High**	**Moderate**	**Moderate**	**Moderate**	**Low**
Special Areas	I	I	I	I	I	I	I
Scenic Quality A	II	II	II	II	II	II	II
Scenic Quality B	II	III	III	III	IV	IV	IV
Scenic Quality C	III	IV	IV	IV	IV	IV	IV
Distance Zones							
	Foreground (FG) Middle ground (MG)	Background (BG)	Seldom Seen (SS)	FG MG	BG	SS	SS

Note: Class V areas are those that have not been identified in the VRM planning system which require rehabilitation or enhancement and therefore are not included in this chart.

For the Proposed Project and alternatives, scenic quality rating units outside the Coachella Valley were assigned interim VRM Classifications of II, III, and IV, depending on their respective scenic quality ratings, viewer sensitivity levels, and distance zones as shown in Figure 3.6-1b and Table 3.6-3.

Table 3.6-3
Interim Visual Resource Management Classifications
(Outside Coachella Valley)

Inventory Unit	Scenic Quality	Viewer Sensitivity	Distance Zone	VRM Classification
Eastern end of Project Area to Chuckwalla Mountains	C	Moderate	Foreground/ Middleground	IV
Central Project Area from Chuckwalla Mountains to CVPA Planning Area	B	Moderate	Foreground/ Middleground	III
Eastern End of Project Area, South to Palo Verde Mountains	C	Moderate	Foreground/ Middleground	IV
Palo Verde Mountains, South to Glamis	B	Moderate	Foreground/ Middleground	III
Northwest of Glamis along Algodones Dunes	West side: B East side: A	Moderate	Foreground/ Middleground	West side: III East side: II
North of Algodones Dunes to Midway Substation	C	Moderate	Foreground/ Middleground	IV

3.6.1.2 State

3.6.1.2.1 California Environmental Quality Act

Appendix G of the CEQA Guidelines provides a checklist of questions that a lead agency should normally address if relevant to a project's environmental impacts. Specifically, the checklist contains the following four questions pertaining to aesthetics that are intended to assist in the determination of whether a project may result in significant visual impacts:

(a) Would the project have a substantial adverse effect on a scenic vista?

(b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

(c) Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

(d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

3.6.1.2.2 Scenic Roadways

Highway 62, located west of Devers Hill and the Devers Substation, is designated as a State Scenic Highway. SR-111 is an eligible State Scenic Highway, but it is not officially designated (U.S. DOT, State Scenic Highways 2002).

Section 1047 of the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 was established by the Scenic Byways Program. Under the National Scenic Byways Program, the U.S. Secretary of Transportation recognizes those roads that are outstanding examples of scenic,

historic, recreational, cultural, archeological and/or natural qualities by designating them as either National Scenic Byways or All-American Roads. The Bradshaw Trail is designated a National Scenic Byway (U.S. DOT, National Byways 2002) and it is designated as a National Back County Byway by the BLM.

3.6.2 Environmental Consequences

3.6.2.1 Methodology and Criteria

This section provides a discussion of the methodology and criteria used to assess impacts to visual resources that could occur as a result of construction and operation of the Proposed Project and alternatives. The area of analysis for visual resources considers areas in which project facilities would be located, including substation locations, along the Proposed Project and alternative transmission line routes. A qualitative approach was used to assess the temporary visual impacts associated with construction activities and the presence of construction equipment. The assessment of long-term impacts utilizes the BLM's Visual Contrast Rating System, as discussed in Section 3.6.1.1.1.

3.6.2.2 Visual Contrast Determinations

The BLM's Visual Contrast Rating System was used to identify levels of visual contrast that would be associated with Project facilities as viewed from Key Observation Points (KOPs). This rating system has been applied to the assessment of the potential impacts for the Proposed Project and alternatives once constructed and in operation. Because construction is a temporary activity, this methodology was not applied to construction impacts. However, a more qualitative assessment of potential construction-related visual impacts was conducted and implementation of mitigation measures was assumed to reduce the severity of construction related impacts (See Visual Resources Impact 1). The Contrast Rating for the permanent facilities was compared to the VRM Classification for the KOP site to determine if management objectives would be achieved. If they would not be achieved, then mitigation measures were identified to bring the Proposed Project or alternatives into conformance with the objectives of the VRM Class.

Generally, one can conclude the following from contrast ratings: strong contrasts are allowed in Class IV areas, but would need to be mitigated in Class II and III areas (note: Class I designation is applied to wilderness and wild and scenic rivers which would not be crossed by the project); moderate contrasts would be allowed in Class III and IV areas, but would need to be mitigated in Class II areas; weak contrasts would be allowed in Class II, III, and IV areas (Foote 2002).

3.6.2.3 Proposed Project, Alternative A, and Alternative C Impacts and Mitigation Measures

The Proposed Project would result in the addition of new and expanded substations and transmission line facilities. Visual impacts of the Proposed Project, Alternative A, and Alternative C were determined by applying the methods described above to seven KOPs.

Visual Resources Impact 1: *Potential Visual Impacts During Construction*

The following section presents impacts to visual resources that would be common to the Proposed Project and Alternatives A and C routes. Potential direct and indirect impacts to visual resources that could occur along of these routes include:

- Construction impacts;
- Effects of new temporary spur roads; and
- Effects of vegetation removal.

Use of construction material yards may create a short-term adverse visual impact. However, this impact would be modest because an approved Reclamation Plan would be implemented to reduce any adverse impact. Additional mitigation would not be required.

Direct effects to visual resources along the entire study corridor would stem from the surface disturbance required for the improvements to existing access roads, temporary spur roads, and clearing vegetation around tower sites. Access roads are defined as existing roads that might be used to access the construction and maintenance sites from the nearest State Highway, U.S. Highway, and county roads. IID proposes to use three types of access roads to construct the project: paved roads, dirt roads that do not require improvements, and dirt roads that may require improvements. Use of these existing roads for access is not expected to have adverse impacts on visual resources.

Temporary spur roads would be cleared in areas where existing access roads parallel the route corridor. Spur roads would be about 24 feet wide, would extend from the existing parallel access roads to the tower locations, and would be reclaimed after project completion. The Proposed Project, Alternatives A and C transmission routes would generally be close enough to existing parallel roads so that temporary spur roads would be used to access the tower locations. Clearing of spur roads would not create a substantial visual impact because the roads would generally be screened by the topography and the rock and vegetation types in the area. The Reclamation Plan identifies efforts necessary to reclaim disturbed areas. Because of the short-term use of the spur roads and the screening by vegetation, the roads will create a low visual contrast to the observer or passer-by. Therefore, clearing of the spur roads would not create a substantial visual impact.

The fundamental restoration concept for areas disturbed during construction is to allow natural revegetation to take place and to minimize the extent of the area requiring restoration. The natural revegetation process may take several years. The majority of the transmission line corridor is located in VRM Class III and IV areas, and the types of construction-related disturbance described above would be generally consistent with the established management objectives for Class III and IV areas. Therefore, with the implementation of a BLM-approved Reclamation Plan, modest visual impacts are expected in these areas.

Visual Resources Impact 1 Mitigation Measure: *Mitigation Measure for Construction Impacts.*

- After Project construction is complete, ground surfaces within the transmission line right-of-way and areas outside the right-of-way that are disturbed during project construction would be restored to their original condition and grade, as outlined in the Reclamation Plan.

- Staging areas would be revegetated as necessary, pursuant to the Reclamation Plan.
- Topographic features and landforms would be used to screen the spur roads where feasible.
- Existing rock formations and vegetation would be retained whenever possible.
- Construct access roads and the spur roads at appropriate angles from the originating primary travel route to minimize extended, in-line views of newly graded terrain. This mitigation is dependent upon the ability to safely construct, maintain, and utilize the road/route.

Visual Resources Impact 2: *Conflicts with BLM VRM Goals and Objectives.*

The overall goal of the BLM's VRM system is to minimize visual impacts and ensure that mitigation measures are applied to potentially adverse visual impacts. Section 3.6.2.3.1 describes potential project-related visual contrasts that could occur at several key observation points along the Proposed Project and Alternative A and C transmission line routes, followed by an assessment of whether BLM VRM goals and objectives would be met.

The Visual Contrast Rating System is a formal process utilized by BLM to identify and analyze the potential visual impacts of projects and management-related activities. The basic analysis in this rating system focuses on the degree to which a project impacts the visual quality of an area. This depends on the visual contrast created between a project and the existing landscape. Visual contrast is measured by comparing the project's features with the major features in the existing landscape. The basic design elements of form, line, color, and texture are used to make this comparison and describe the visual contrast created by the project.

The steps in the Visual Contrast Rating System include describing the features of the characteristic landscape and Proposed Project, identifying KOPs, preparing visual simulations of the project from these KOPs, and assessing the project's contrast with the landscape. Given the project description detailed in Section 2.0, and the established and interim VRM Classifications described in Section 3.6.1, the following sections provide a description of KOPs selected for the project area and a brief summary of the visual contrast ratings identified for those KOPs using visual simulations prepared for the project.

3.6.2.3.1 Visual Impacts at Key Observation Points

KOPs were selected at various locations along the Proposed Project and alternative transmission line corridors to compare potential project-related visual contrasts with the major features in the existing landscape. KOPs are usually located along commonly traveled routes or at other prominent observation points, such as residential developments, parks or trails. Linear projects such as powerlines are rated from several viewpoints. A total of ten KOPs were selected for the project based on the following factors:

- Most critical viewpoints, e.g. views from communities and road crossings;
- Typical views encountered in representative landscapes, if not covered by critical viewpoints; and
- Any special project or landscape features such as skyline crossings, river crossings, substations, etc.

To characterize the potential impacts on the landscape, photo simulations were prepared by overlaying images representing project facilities (primarily transmission lines and towers) onto photographs of the project area, as it presently exists. The purpose of the photo simulations is to approximate the anticipated long-term appearance of the project and to serve as an aid in identifying visual contrasts and evaluating potential visual impacts. Figure 3.6-2 illustrates the location and view orientation of each KOP. Some KOPs were chosen because these areas attract visitors and are predominant in the area. Table 3.6-4 provides a summary of determinations for established VRM Classifications, interim VRM Classifications, visual contrast rating, and whether the VRM classification objective would be met.

Descriptions of the characteristic landscape as seen from KOPs are provided in the following sections. These vary from location to location. Features of the Proposed Project, on the other hand, remain consistent on a project-wide basis. Generally, few permanent modifications to land and vegetation would occur. Weak geometric forms would be created from clearing vegetation and establishing a base for transmission towers. This would result in weak horizontal lines created by the edge effect of cleared vegetation. Where vegetation is removed, the color of the exposed soil would be tan or gray; texture of the land would be smooth; and vegetative patterns would be patchy. These project features would be scarcely visible, if at all, from KOPs. On the other hand, the project structures (transmission towers) constitute the primary visible feature, and would create the most contrast with the landscape. Typically, transmission towers are comprised of irregular geometrical forms, have predominantly vertical lines, are muted gray in color, and are medium to coarse in texture due to their lattice construction.

Table 3.6-4
Visual Impacts At KOPs: Proposed Project, Alternative A, and Alternative C

KOP	Established VRM Classification	Interim VRM Classification	Visual Contrast Rating	Conforms to VRM Classification objectives
1- 230kV	N/A	N/A	Weak	N/A
1- 500kV	N/A	N/A	Weak	N/A
2-230kV	N/A	N/A	Weak-Moderate	N/A
2-500kV	N/A	N/A	Weak-Moderate	N/A
3-230kV	N/A	N/A	Weak	N/A
3-500kV	N/A	N/A	Weak	N/A
4A-230kV	N/A	Class III	Weak-Moderate	Yes
4A-500kV	N/A	Class III	Weak-Moderate	Yes
4B-230kV	N/A	Class III	Weak -Moderate	Yes
4B-500kV	N/A	Class III	Weak-Moderate	Yes
5-230kV	N/A	Class III	Weak	Yes
5-500kV	N/A	Class III	Weak	Yes
6-230kV	N/A	Class III	Moderate	Yes
6-500kV	N/A	Class III	Moderate	Yes

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Figure 3.6-2
Key Observation Point Map

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3.6.2.3.2 KOP 1

KOP 1 is located near a residential area on Dillon Louise Street (see Figure 3.6-3 and 3.6-4, Existing Condition). This road is a low-traffic residential road that provides views of many existing transmission structures. These transmission towers can be seen in the foreground and middle ground. The Little San Bernardino Mountains are in the background. Vegetation in the area ranges from hues of green to brown. The land at KOP 1 is not managed by the BLM and is, therefore, not subject to the BLM VRM system. However, visual contrast was included in this analysis to comply with CEQA regulations. Given the presence of existing transmission lines and associated towers that dominate the landscape at this KOP, the addition of new lines to the viewshed would create a weak contrast to the existing environment because it is within the visual character of the area (Figures 3.6-3 and 3.6-4, Visual Simulations).

By implementing the Visual Resources Impact 2 mitigation measures described below, visual impacts would be further reduced.

3.6.2.3.3 KOP 2

KOP 2 is located along Palm Road. Palm Road is designated as a scenic corridor in the Riverside County General Plan. Transmission lines dominate the view from this road for much of its length (see Figure 3.6-5 and 3.6-6, Existing Condition). These lines are visible in the middle ground. Much of the vegetation in the area is scattered and range in various shades of brown. This KOP was chosen because of its designation in the Riverside County General Plan. The land at KOP 2 is not managed by the BLM and is, therefore, not subject to the BLM VRM system. However, visual contrast was included in this analysis to comply with CEQA regulations. Therefore, the addition of the 230-kV or the 500-kV (Figures 3.6-5 and 3.6-6, Visual Simulations) presents a weak-to-moderate contrast to the present environment. The moderate classification comes from the addition of new towers nearest the road.

By implementing the Visual Resources Impact 2 mitigation measures described below, visual impacts would be further reduced.

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Figure 3.6-3
KOP 1 – Existing Condition and 230-kV Simulation

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Figure 3.6-4
KOP 1 – Existing Condition and 500-kV Simulation

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Figure 3.6-5
KOP 2 – Existing Condition and 230-kV Simulation

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Figure 3.6-6
KOP 2 – Existing Condition and 500-kV Simulation

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3.6.2.3.4 KOP 3

KOP 3 is located at the corner of the Sun City subdivision in Palm Desert. The Sun City subdivision is a newer residential community that affords views of the Indio Hills. These Hills are a wide, non-directional mass that are predominant in the backdrop of the skyline. The vegetation in the area is broken and complex and range from dark brown to green (see Figure 3.6-7 and 3.6-8, Existing Condition). Views of the existing transmission line are seen in the foreground and middle ground view. This KOP was selected due to the presence of the residential subdivision (Figure 3.6-7 and 3.6-8, Visual Simulations). The addition of new lines and towers would be within the existing footprint and corridor of the others. The land at KOP 3 is not managed by the BLM and is, therefore, not subject to the BLM VRM system. However, visual contrast was included in this analysis to comply with CEQA regulations. Therefore, because the towers are located to the north, behind the existing lines as viewed from the subdivision build out, a weak contrast would be presented.

By implementing the Visual Resources Impact 2 mitigation measures described below, visual impacts would be further reduced.

3.6.2.3.5 KOP 4A and KOP 4B

KOP 4A and 4B are located along I-10, where the existing transmission line crosses the interstate (see Figures 3.6-9 through 3.6-12, Existing Condition). These KOPs provide views of the Cottonwood Mountains to the north and Mecca Hills and Orocopia Mountains to the south of the Interstate (Figures 3.6-9 through 3.6-12, Visual Simulations). These landforms present a bold complex form, and are irregular in shape. The color ranges from various shades of brown. The vegetation in the area is asymmetrical and scattered throughout the viewshed with colors ranging from yellow to green and appear rough. I-10 affords many views of existing transmission lines and utility structures, which remain typically in the foreground and middle grounds. These existing transmission lines and structures create strong geometric and linear forms that are gray in color and course in texture. The addition of a new transmission line and associated towers adjacent to the existing lines would create a weak to moderate contrast in this viewshed. In accordance with Table 3.6-4 above, the interim VRM Classification for KOPs 4A and 4B is Class III. Accordingly for KOPs 4A and 4B, changes/contrasts in any of the basic elements (form, line, color, texture) caused by the project a should remain subordinate to the existing landscape. Therefore, at KOPs 4A and 4B, the project would be in conformance with the VRM objective.

By implementing the Visual Resources Impact 2 mitigation measures described below, visual impacts would be further reduced.

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Figure 3.6-7
KOP 3 - Existing Condition and 230-kV Simulation

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Figure 3.6-8
KOP 3 - Existing Condition and 500-kV Simulation

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Figure 3.6-9
KOP 4A – Existing Condition and 230-kV Simulation

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Figure 3.6-10
KOP 4A – Existing Condition and 500-kV Simulation

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Figure 3.6-11
KOP 4B – Existing Condition and 230-kV Simulation

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Figure 3.6-12
KOP 4B – Existing Condition and 500-kV Simulation

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3.6.2.3.6 KOP 5

This KOP is located at Red Cloud Drive, and faces the Orocopia and Chocolate Mountain ranges. This view is to the south and depicts various shades of vegetation, which is typical of a desert ecosystem (Figure 3.6-13 and 3.6-14, Existing Condition). The existing transmission line can be viewed in the middle ground and is barely noticeable because of the colors of the background. The mountains appear as a continuous, smooth flowing dimensional mass throughout the viewshed. The vegetation in the area is jagged, scattered, and symmetrical. The vegetation color is predominantly brown. KOP 5 is located within an area classified as interim VRM Class III. The addition of a new transmission line would create a weak contrast in accordance with the area surroundings (Figure 3.6-13, Visual Simulation). Existing utility poles and lines are present in the viewshed. A weak contrast is in conformance with the interim Class III designation, which accommodates changes that are evident, but remain subordinate to existing landscape.

By implementing the Visual Resources Impact 2 mitigation measures described below, visual impacts would be further reduced.

3.6.2.3.7 KOP 6

This KOP is located near Desert Center (see Figure 3.6-15 and 3.6-16, Existing Condition). Desert Center is a popular exit on I-10 for various highway commercial services and a rest stop. This KOP affords a view of the Chuckwalla Mountains to the south. The Mountains appear as a bold definitive mass with rugged edges. The desert vegetation is contrasting and asymmetrical and ranges from light to dark brown in color. The existing transmission lines are in the background and are barely noticeable to viewers at the Desert Center location. KOP 6 is located in an interim VRM Class III area. The addition of a 230 or 500-kV transmission line would create a moderate contrast, since the project would add linear and angular lines to a natural setting with rolling and asymmetrical lines (see Figure 3.6-15 and 3.6-16, Visual Simulation). The lines and towers would appear to blend in, to some extent, with the dark colors of the mountains. A moderate contrast would be in conformance with the interim Class III designation, which accommodates changes that are evident, but remain subordinate to existing landscape.

By implementing the Visual Resources Impact 2 mitigation measures described below, visual impacts would be further reduced.

Visual Resources Impact 2 Mitigation Measures: *Mitigation Measures for Conflicts with VRM System Goals and Objectives.*

- Establish limits of disturbance that reflect the minimum area required for construction.
- Finish transmission structures with flat, neutral gray tones that would relate to the colors of the structures in the existing transmission corridors and would blend with the surrounding environment.
- Use nonspecular conductors, and nonreflective and nonrefractive insulators to reduce conductor and insulator visibility.

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Figure 3.6-13
KOP 5 –Existing Condition and 230-kV Simulation

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Figure 3.6-14
KOP 5 – Existing Condition and 500-kV Simulation

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Figure 3.6-15
KOP 6 – Existing Condition and 230-kV Simulation

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Figure 3.6-16
KOP 6 – Existing Condition and 500-kV Simulation

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3.6.2.4 Alternative B Impacts and Mitigation Measures

Alternative B would result in the addition of new and expanded substation and transmission line facilities. Visual impacts of Alternative B were determined by applying the methods described above to three KOPs.

Visual Resources Impact B1: *Potential Visual Impacts During Construction.*

Potential visual impacts related to construction of Alternative B would be similar in nature to those describe previously for the Proposed Project.

Visual Resources Impact B1 Mitigation Measure: *Mitigation Measure for Construction Impacts.*

Mitigation Measure for Alternative B would be similar to those identified for the Proposed Project.

Visual Resources Impact B2: *Conflicts with VRM System Goals and Objectives.*

As described previously for the Proposed Project, the overall goal of the BLM's VRM system is to minimize visual impacts and ensure that mitigation measures are applied to adverse visual contrast conditions. Section 3.6.3.6 describes potential project-related visual contrasts that could occur at three key observation points in the Alternative B portion of the project area, followed by an assessment of whether BLM VRM goals and objectives would be met.

3.6.2.4.1 Visual Impacts at Key Observation Points

Table 3.6-5 provides a summary of determinations for established VRM Classifications, interim VRM Classifications, visual contrast rating, and whether the KOP meets the VRM Classifications objectives.

Table 3.6-5
Visual Impacts At KOPs: Alternative B

KOP	Established VRM Classification	Interim VRM Classification	Visual Contrast Rating	Conforms to VRM Classification objectives
7- 230kV	N/A	Class III	Moderate	Yes
8-230kV	N/A	Class III	Moderate	Yes
9-230kV	N/A	Class III	Weak	Yes

3.6.2.4.2 KOP 7

KOP 7 is located along SR-78, which runs in a north-south direction (Figure 3.6-17, Existing Condition). In this view, there are many dimensional, contrasting forms. The landscape composition creates a panoramic view. The landform is smooth and flowing with dimensional masses. Colors range from brown landforms to a blue horizon. The vegetation is complex and non-directional, with colors ranging from brown to green. The addition of new transmission lines

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Figure 3.6-17
KOP 7 – Existing Condition and 230-kV Simulation

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and towers would present a moderate contrast to the background skyline (Figure 3.6-17, Visual Simulation). The towers would be closer to the viewer and would appear taller. The area surrounding the KOP is generally flat and any protrusion from the land would create a contrast. The interim VRM Classification for KOP 7 is Class III. Accordingly, changes in any of the basic elements (form, line, color, texture) caused by the project may be evident in the characteristic landscape, but should remain subordinate to the characteristic landscape. Contrasts are visible, but must not attract attention; therefore KOP 7 meets the Class III objectives.

By implementing the Visual Resources Impact B2 Mitigation Measure described below, visual impacts would be further reduced.

3.6.2.4.3 KOP 8

This KOP is located along the existing 161-kV transmission line. The viewshed is to the north, facing the Palo Verde Mountains (Figure 3.6-18, Existing Condition). The landform is a two-dimensional mass, with smooth flowing lines. Colors range from light to dark brown. The vegetation is scattered and sparse. The vegetation lines are angular and complex. Colors range from green to tan. The brown, wooden H-frame towers of the existing transmission line are visible in the middle ground and background. The frames appear as a horizontal linear shapes against a green to brown desert flora surrounding. The existing maintenance road and associated disturbance is visible. The addition of new towers with a different structure and geometric shape would create a moderate contrast (Figure 3.6-18, Visual Simulation).. In accordance with Table 3.6-5 above, the interim VRM Classification for KOP 8 is Class III Accordingly, changes in any of the basic elements (form, line, color, texture) caused by the project may be evident, but remain subordinate to the characteristic landscape Therefore, the Class III objective is met.

By implementing the Visual Resources Impact B2 Mitigation Measure described below, visual impacts would be further reduced.

3.6.2.4.4 KOP 9

This KOP is located along SR-78 near an over-crossing of the existing 161-kV transmission line. The area along the highway is highly disturbed and the transmission lines are dominant in this view (see Figure 3.6-19, Existing Condition). The Chocolate Mountains are visible in the background of the viewshed, appearing in the distance as a dark silhouette. The Mountains present a two-dimensional smooth form. They contain diffuse edges and are flowing. Colors of the Mountains are light brown. The vegetation in the area is complex and broken. The predominant color of the vegetation is green. This KOP and surrounding area has expansive views of transmission lines and poles, which dominate the landscape. Given the dominating appearance of these existing transmission lines and poles, the addition of new lines and towers would create a weak contrast to the KOP and surrounding environment (Figure 3.19-6, Visual Simulation). In accordance with Table 3.6-5 above, the interim VRM Classification for KOP 9 is Class III. Accordingly, changes in any of the basic elements (form, line, color, texture) caused by the project may be evident, but should remain subordinate to existing landscape. . Therefore, the Class III objective is met.

By implementing the Visual Resources Impact B2 Mitigation Measure described below, visual impacts would be further reduced.

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Figure 3.6-18
KOP 8 – Existing Condition and 230-kV Simulation

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Figure 3.6-19
KOP 9 - Existing Condition and 230-kV Simulation

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Visual Resources Impact B2 Mitigation Measure: *Mitigation Measure for Conflicts with VRM System Goals and Objectives.*

Mitigation measures for Alternative B would be similar to those identified for the Proposed Project.

3.6.2.5 Upgrade Portion of Alternative B

No visual simulations were prepared for the upgrade of Alternative B because upgrade-related modifications of the existing transmission line would not substantially change its visual setting.

3.6.2.6 No Project Alternative

Under the No Project Alternative, no new facilities would be constructed and no visual impacts would occur.

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